DOCUMENT RESUME

ED 053 657 HE 002 389

AUTHOR	Bowman, James L.; Weiss, Gertrude S.
TITLE	Expected Contribution Toward Educational Costs: Suggested Revisions for 1969-70.
INSTITUTION	Educational Testing Service, Princeton, N.J.
PUB DATE	Sep 69
NOTE	28p.
AVAILABLE FROM	College Scholarship Service, Educational Testing Service, Princeton, New Jersey 08540
EDRS PRICE	EDRS Price MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS	*Educational Finance, *Family Income, *Family Resources, *Financial Needs, *Financial Support, Higher Education

ABSTRACT

Significant changes have occurred in parental contributions expected from various income levels over the last 15 years, reflecting the changing nature of institutions, the general availability of financial aid resources, and general changes in the economy. The purpose of this paper is to trace the evolution in College Scholarship Service procedures for determining the expected parental contribution toward educational costs and to suggest certain revisions in current procedures based on data recently published by the Bureau of Labor Statistics. It is recommended that the expected contribution from low income families be reduced by about $200; that contributions from middle income families remain generally the same; and that the expected contribution from high income families be substantially increased. (JS)

EDO 536657

CSS

Expected Contribution Toward Educational Costs: Suggested Revisions for 1969-70

James L. Bowman

Gertrude S. Weiss

September 1969

HE002389

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

COLLEGE SCHOLARSHIP SERVICE · EDUCATIONAL TESTING SERVICE · PRINCETON, NEW JERSEY

COLLEGE SCHOLARSHIP SERVICE

Expected Contribution Toward Educational Costs:

Suggested Revisions for 1969-70

James L. Bowman
Program Director, College Scholarship Service
Educational Testing Service, Princeton, New Jersey

Gertrude S. Weiss
Consulting Economist, Washington, D. C.

Educational Testing Service
Princeton, New Jersey

September 1969

Introduction

While many of the CSS procedures and concepts have remained relatively unchanged since the establishment of CSS in 1954, this does not hold true in the general area of what parents are expected to be able to contribute toward the educational expenses of their children. Significant changes have occurred in parental contributions expected from various income levels over the course of the last fifteen years, reflecting in many instances the changing nature of member institutions and the general availability of financial aid resources as well as general changes in the economy.

It should be noted that no change has taken place with respect to the type of parental contributions expected. A parent is expected to make a continued contribution toward the maintenance of the child, reflecting continued parental obligation toward support and a contribution toward "out-of-pocket" educational expenses where appropriate. The amounts generally considered to be available from each source have changed in response to changes in economic conditions. In recent years, the changes have occurred with some frequency with concomitant effects on the aggregate financial need of filers of Parents' Confidential Statements.

The purpose of this paper is to trace the evolution in CSS procedures for determining the expected parental contribution toward educational costs and to suggest certain revisions in current procedures based on recently published data by the Bureau of Labor Statistics.

Maintenance Level of Income

What can be expected as the maintenance contribution for the child at various income levels and for families of varying sizes has, for almost a decade, been influenced by the amount estimated to be required to maintain a family at a moderate standard of living (essentially that standard enjoyed by the middle third of the income distribution). Prior to 1962, the basic maintenance contribution was determined

by applying a varying percentage ratio to family net income. This methodology, developed at Harvard University, was described by John Munro in 1953, as follows:

> "... as to income, we have two lines of attack. Our first assumption is that a family is obliged to maintain a child, to provide food, shelter, clothing, and so on. We calculate this cost of basic maintenance at 12% of the net family income for an only child; at 10% each if there are two children; and at 8% each if there are more than two children. Because our expense budget covers the maintenance items for about nine months of the year, we count on receiving three-fourths of our 'obligatory maintenance' figure for the year. For example, taking a family with $6,000 income, and two children, the maintenance calculation for one child would be 10%, or $600 a year, and we would want 75% of that, or $450."[1]

This procedure was adopted by CSS in 1954 and remained relatively unchanged until 1962. The only change during this six-year period was to modify the percentage of income considered available for a child's maintenance for larger-size families. During 1961-62, the percentages assumed to be available for the 9-month academic term ranged from 9 per cent for the only child to 3¼ per cent for a child from a family with eight or more children.[2]

Effective with CSS processing in the 1962-63 academic year, a change in the derivation of the maintenance contribution was instituted. In 1961, the CSS Subcommittee on Computation adopted the following resolution:

---

[1] Munro, John V., "Helping the Student Help Himself," The College Board Review, May, 1953, p. 354.

[2] Financial Aid Manual, 1961-62 Edition, College Scholarship Service.

"That in the rationale for our procedures we use the 'modest-but-adequate level of income' to describe the amount of money that a family must spend to maintain a reasonable standard of living and meet necessary obligations; and that discretionary income be substituted for the present concept of remainder."[3]

The modest-but-adequate level of income used was that level of income presented by the Bureau of Labor Statistics (BLS) in the Interim City Worker's Family Budget.[4] This budget was described as interim because only limited revisions of the first CWFB, prepared in 1946-47, were attempted. It thus reflected living standards of the 1950's and even earlier. Budget costs for a two-parent, two-child family, were derived using prices for the autumn of 1959 in 20 large cities of the U.S. Estimates for the costs for other size families were supplied by an equivalent income scale developed by BLS.[5] The income points at which families of varying sizes were assumed to be maintaining a moderate standard of living in 1962 are shown in Table 1:

Table 1. Modest-but-Adequate Income Levels - 1962[6]

No. of Dependent Children	Income Before Federal Tax	Typical Tax	Income After Federal Tax
1	$6,250	$750	$5,500
2	7,350	850	6,500
3	8,175	875	7,300
4	8,750	850	7,900
5	9,225	825	8,400
6	9,550	750	8,800
7	9,775	675	9,100
8	9,825	575	9,250

---

[3]Minutes of the CSS Subcommittee on Computation, June 28-29, 1961.

[4]Helen H. Lamale and Margaret S. Stoltz, "The Interim City Worker's Family Budget," Monthly Labor Review, August 1960, pp. 785-808.

[5]_____, "Estimating Equivalent Incomes or Budget Costs by Family Type," Monthly Labor Review, November, 1960, pp. 1197-1200.

[6]Financial Aid Manual, 1962-64 Edition, College Scholarship Service, p. 47.

These income points were used by CSS to define the levels below which all parental income was assumed to be needed for the maintenance of the family, including the student. At these levels of income, the expected contribution toward continued support of the child was assumed to be $800.[7] The bottom of the scale, at which no contribution whatever could be expected, not even towards the maintenance of the student, was fixed at 40 per cent of the modest-but-adequate level. Since objective standards were lacking, this level was selected because it was in accord with current practices of colleges and had the merit of keeping differences among families of different size constant over the income range.

By 1964, the budget base of the CSS system was outmoded. The BLS was no longer printing its modest-but-adequate budget, for its standard was no longer considered appropriate for the mid-1960's. At that time, BLS was uncertain of the prospect for a revision in the City Worker's Family Budget[8] and an alternative means of updating CSS procedures was sought. Updating was required not only to compensate for changes in the cost of living since the autumn of 1959 but also because of increasing concern for low-income families within the CSS system. In the fall of 1965, the CSS need analysis procedures were revised to incorporate the poverty income levels for families of different size as defined by the Social Security Administration (SSA).[9] These levels

---

[7]This expected contribution was analogous to the "obligatory maintenance" figure in use by CSS in the 1954-62 period. Estimates of the child's share for nine months of the year for all family costs except housing, life insurance and taxes, ranged from $700 to $770 for families of different sizes. The CSS selected $800 as an appropriate "round number" which had the additional advantage of being close to charges made by many colleges for board and room.

[8]It should be noted that there was a general demand for BLS to undertake a revision in the CWFB. An Advisory Committee, chaired by Dr. Gertrude Weiss, had previously made recommendations on the needs for various types of budgets and general concepts of the standards of living to be described. See Report of the BLS Advisory Committee on Standard Budget Research, June, 1963.

[9]Mollie Orshansky. "Counting the Poor: Another Look at the Poverty Profile," Social Security Bulletin, January, 1965, pp. 3-29.

were used as the income points at which families are considered to be so poor they cannot be expected to contribute at all to the maintenance of a child at college. These income levels are contrasted with the previous CSS income levels at which no contribution was expected in Table 2 below (page 6a).[10] At that time, too, the maintenance level of income was raised since it was considered desirable to use a technique for selecting moderate income levels consistent with that used in defining poverty income points.

Briefly stated, the SSA defined poverty incomes for families of different sizes as incomes that could purchase nutritionally adequate diets (which were limited in use of popular and costly foods) if a relatively high proportion of income (one-third) is spent for food. The moderate or maintenance standard was redefined in a consistent manner, namely, as incomes that would purchase a more acceptable diet if a more normal proportion (one-quarter) of income is spent for food. Appropriate dietary plans, as developed and priced by the United States Department of Agriculture, were the basis of both the SSA and the suggested moderate income estimates.[11] The resulting "moderate" income points are compared with the "modest-but-adequate" levels in Table 3, page 6b.

Subsequent to the publication by BLS of its City Worker's Family Budget for a Moderate Living Standard, Autumn, 1966[12] Consideration was given to incorporating the new standard in CSS procedures.[13] It was recommended, however, that utilization of the

---

[10] 1962 income levels are those representing 40 per cent of the modest-but-adequate budget. 1965 income levels represent the SSA near-poor points.

[11] James L. Bowman, "CSS Procedures for Use with Low-Income Families," Financial Aid News, December, 1965, pp. 2-3.

[12] City Worker's Family Budget for a Moderate Living Standard, Autumn, 1966. BLS Bulletin No. 1570-1, 1967.

[13] James L. Bowman and Gertrude S. Weiss, Some Aspects and Implications of the 1966 City Worker's Family Budget for CSS Needs Analysis Procedures. Princeton, New Jersey, Educational Testing Service, March, 1968.

1966 budget be deferred inasmuch as BLS was repricing the moderate standard, using spring 1967 prices, and would be publishing costs for a lower standard (representing a minimum of adequacy) and a higher standard budget (representing a more comfortable level and manner of living). It was felt that these three budgets, representing minimum, moderate, and affluent levels might provide the basis for a complete revision of levels of expected contributions over all income levels. Consequently, it was considered premature to move at that time to the income levels represented by the new BLS moderate standard.[14]

Some revisions of the estimates of income required for a moderate standard and those points at which no contribution could be expected was required. Any need analysis procedure that takes account of the cost of purchased goods and services must obviously be revised if consumer prices change. From the fall of 1964 to the fall of 1967, the food portion of the Consumer Price Index had increased by 10 per cent with the overall CPI increasing by some 8 per cent. Consequently, the moderate and poverty levels of income were updated using 1967 food prices. These updated levels (which are still currently in effect) are compared with previous income points in Table 2 and Table 3 (pp. 6a and 6b).

It would appear, from a cursory review of Table 2 and Table 3, that a significant easing of parental responsibility for the support of the student has occurred in CSS procedures since 1962. In comparison with changes in the economy that have occurred over the same period, such is not the case. As an example, the income estimated to be required to provide a moderate standard of living for a three-child family (the "average" CSS family size) is approximately $9,200 under present procedures, some $1,300 over the original modest-but-adequate budget of $7,900 used in 1962. This represents a percentage increase of about 16 per cent in the level of income required to provide the moderate standard. At the same time, the Consumer Price Index has increased some

---

[14] Ibid., pp. 15-16

Table 2. Comparison of Before Tax Income Levels at Which No Contribution Can Be Expected Toward the Maintenance of a Child

1962 to 1969

No. of Dependent Children	1962[a/]	1965[b/]	Current[c/]
1	$2,400	$3,200	$3,500
2	2,900	4,000	4,400
3	3,200	4,700	5,200
4	3,400	5,200	5,900
5	3,600	5,800	6,300
6	3,700	6,200	6,700
7	3,800	6,600	7,100
8	3,900	6,900	7,400

a/ Based on 40 per cent of the "modest-but-adequate" level of living.

b/ Based on Orshansky definition of near poor, using fall, 1964 food prices and 1965 tax rates.

c/ Based on Orshansky definition of near poor, using fall, 1967 food prices and 1969 tax rates.

NB: All figures rounded to nearest $100.

Table 3. Comparison of Before Tax Income Levels at Which a Family is Maintaining a Moderate Level of Living and Expected to Contribute $800

1962 to 1969

No. of Dependent Children	1962[a/]	1965[b/]	Current[c/]
1	$6,100	$ 5,900	$ 6,500
2	7,100	7,100	7,800
3	7,900	8,300	9,200
4	8,500	9,300	10,300
5	9,000	10,300	11,100
6	9,400	11,000	11,500
7	9,600	11,600	11,700
8	9,700	12,100	12,000

a/ Based on 1959 BLS Interim City Worker's Family Budget.

b/ Based on fall 1964 food costs as 25 per cent of before tax income. (1965 tax rates).

c/ Based on fall, 1967 food costs as 25 per cent of before tax income. (1969 tax rates).

NB: All figures rounded to nearest $100.

28 per cent so that such families have suffered a decline in terms of "real income."[15] In order to provide comparable purchasing power to the 1962 modest-but-adequate level of $7,900 would require a money income of approximately $10,100 in the summer of 1969. The decline in "real income" has been ameliorated to some extent, however, since the required maintenance contribution has remained at $800. Strictly speaking, as the level of moderate income has increased so should the maintenance contribution, since it is based on expenditure shares of the budget. However, since the maintenance contribution has remained fixed, a smaller percentage of money income has been expected for support of the child in college. In 1962, the $800 expectation represented about 10 per cent of before tax income. At the current time the expected contribution represents about 9 per cent of before tax income.

Discretionary Income

In addition to continued obligation to support the child while at college, the CSS has expected that families will contribute to the out-of-pocket costs of education to the extent that they are able. The criterion and determination of "to the extent that they are able" has varied considerably in the fifteen years of CSS, but has, in essence, been based upon the "ability to pay" principle.

Prior to 1962, a slightly progressive contribution rate was applied to "family remainder" income. This was described by John Munro as follows:

> "...besides the amount for maintenance, we apply a second tax as income. We count up what the mother and father have left for themselves after meeting certain big commitments, and call this the 'family remainder.' To arrive at this number, we take the net family income and subtract from it the following: the maintenance estimates for all the children; the Federal income tax; any heavy expected medical bills; $500 extra for each child in private school or college; and $250 each for any dependent old folks. Whatever is left to the father and mother we tax progressively. Our tax is 2% when the 'family remainder' is $1,000, and rises to 10% at $7,000 or more...."[16]

---

[15] Defined as the amount of goods and services which money income can buy.

[16] Munro, op. cit.

In 1962, with the adoption of the modest-but-adequate standard for the maintenance of the family, came the concept of discretionary income. By CSS definition, income above the maintenance levels is considered to be discretionary income--money which is available to the family for discretionary purchases, one of which could be higher education.[17]

With the advent of the maintenance income / discretionary income concept came a significant increase in the progressivity of the CSS contribution rates. The 1962 revisions were sparked by increasing concerns from the membership that the expectation from incomes below $6,000 were too high and expectations from incomes above $12,000 were too low. Since objective data were lacking, the marginal taxing rates that were developed were necessarily based on pragmatic, procedural decisions by the CSS Sub-committee on Computation, decisions that produced results generally considered desirable by the CSS participants who had expressed their feelings on this issue.[18] The percentage tax rates that resulted are shown in Table 4 below:

Table 4. Percentage Tax on Discretionary Income by Size of Family

1962

Discretionary Income	Number of Children 1	2	3	4	5
First $1,000	28%	25%	22%	21%	20%
Second $1,000	31	29	27	26	25
Third $1,000	35	33	32	31	30
Fourth $1,000	38	37	37	36	35
Fifth $1,000	42	41	41	40	40
Sixth and each succeeding $1,000	45	45	45	45	45

[17] Financial Aid Manual, 1962-64 Edition, op. cit., p. 46.

[18] Ibid., p. 47

As can be seen, the marginal rates of contribution were highly progressive with respect to income. One reason for the high degree of progressivity was that the Committee felt the revisions in the expectations should not change the aggregate amount expected from families in the CSS population. As a consequence, the expectations from discretionary income were fixed mathematically so that the aggregate financial need of CSS filers was the same as had existed prior to the revisions. At that time there was no thought or plans for a large scale increase in available financial aid resources from governmental sources. The question which faced the Subcommittee on Computation was rather how should existing resources be most fairly divided among applicants. The result was that the pie remained the same but was sliced in a different manner.

The updating of the moderate level of income and the establishment of new points of minimum expectations that occurred in 1965 did not affect the marginal rates of contribution from discretionary income. As was pointed out at the time:

> "...adoption of the recommendation...(relative to the new moderate and poverty income points)...will have the effect of spreading the present curves of expectation from income over all income levels. No changes in the shape of the curves are proposed at this time. The shape of the curves are derived by the marginal rates of contribution from income as discretionary income increases and is a problem separate from that involving determination of a poverty level of income and the development of an increase level approximating a 'moderate' level of living. Consequently, until such time as the marginal rates of contributions from discretionary income can be studied..., we recommend that the present rates of contribution be utilized for income levels above the 'moderate' level."[19]

---

[19] James L. Bowman and Gertrude S. Weiss, Suggestions for Adapting CSS Procedures for Use with Low-Income Families, (Educational Testing Service, Princeton, New Jersey), April, 1965, p. 6.

By 1966, it was the general feeling that the taxing rates from discretionary income, developed by "pragmatic, procedural decisions of the Subcommittee on Computation," were no longer appropriate. Increasingly, higher education was being viewed as a right and not a privilege. The Higher Education Act of 1965, together with continued growth in state programs, had broadened the financial aid resources at institutions. Of great importance, too, was the continued spiral in college costs. The net effect was that the existing taxing rates were expecting unreasonable contributions from discretionary income, contributions that were not contemplated or visualized in 1962. An expectation of $2,800 toward college costs has little meaning to a family earning $13,000 if the actual costs of attending an institution are $1,800, for the "ceiling of contribution" is established at what the family must actually pay. On the other hand, as the costs of attending college rise, so does the effective "ceiling of contribution." The $2,800 expected contribution now becomes <u>real</u> if the college costs are $3,000.

As was pointed out at the time:

> "...that <u>some</u> revision of the current levels of expectation is required, there is no doubt--but what should determine the expected levels of contribution? To answer this with exactitude would require extensive data regarding motivations, family attitudes, exact costs and other data which, unfortunately, are not available...."[20]

On the other hand it was pointed out that extensive data existed on general consumption patterns of American households and it was proposed that CSS expected

---

[20]Gertrude S. Weiss and James L. Bowman, <u>A Proposal for Modification of the "Curves of Expectation,"</u> Princeton, New Jersey: Educational Testing Service, November, 1966 (mimeographed), p. 3.

contributions from discretionary income be derived from spending patterns of families' own discretionary purchases.[21] Analysis of the consumption data contained in the Survey of Consumer Expenditures, 1960-61[22] indicated that generally, for families within the income ranges of $8,000 to $15,000, expenditures of a discretionary nature (for example, food away from home, education, recreation, automobiles, consumer durables, gifts, contributions, and savings) followed a pattern that allocated an increasing share of expenditures to those items as income increased and provided an "expenditure elasticity coefficient" of approximately 2.0.

It was proposed, in order to avoid arbitrary establishment of marginal taxing rates, that a third income point (to go with the previously established points of no contribution and the $800 maintenance contribution) be determined at the level where a contribution/income elasticity of 2.0 would result. In essence, this means for each doubling of income (100 per cent increase), parents' contributions should be tripled (200 per cent increase). A series of income points at which a $2,400 contribution would be expected were devised for various family sizes, using the effective moderate level of income and the $800 maintenance contribution as the bases.

This approach was similar to the philosophy of the then-existing taxing system in that it involved appropriating for education increasing shares of discretionary income. It did, however, provide a more gradual progression in taxing rates, for the relationship between income points was linear and the marginal rates derived applied to larger segments of discretionary income than was true in the 1962 formulations. The result was a reduction in expected parental contributions from those families with discretionary income:

---

[21] Ibid., pp. 3-5.

[22] Survey of Consumer Expenditures, 1960-61, BLS Report No. 237-38, April 1964.

" ... in the upper-middle income ranges, from $10,000 to $17,500, the average contribution under the proposed system has decreased some $200 to $600. Above $17,500, the expected contribution has decreased markedly -- this will have little effect on parents in this bracket, however, since the 'effective level of contribution' (dictated by the actual costs of attending an institution) are for all but a handful of institutions below the proposed contribution level. It is analogous to saying that a family has 'no need' (assuming a $3,000 budget) by $2,000 or by $600 -- under either criterion the family is presumed capable of providing for the educational costs without the assistance of financial aid ...".[23]

A further reduction in expected contribution from discretionary income occurred as a result of updating the moderate income points to account for changes in the cost of living. This change, effective with the 1968-69 processing year, generally reduced contributions from discretionary income by $200 for the one-child family to about $400 for families with five or more children.

Proposed Revisions in the Level of Expectation

As the cost of living continues its steady climb and as the costs of attending institutions of higher education continue to spiral upward, a repeat of the situation that faced CSS in 1961-62 is occurring. That is to say, there is a general feeling by financial aid officers that the current CSS expecations for lower-income families is too high and that expected of higher-income families is too low.

The first situation results from the fact that increases in the cost of living have exceeded the increases in the moderate standard made by CSS since 1962. In the

---

[23]Weiss and Bowman, A Proposal for Modification of the "Curves of Expectations", op. cit., p. 7.

case of the higher income families, the increase in college costs since 1967 has raised the "effective level of contributions" and families that were "no-need" before are now showing some evidence of financial need at high-cost institutions. This has been aggravated by the current treatment of other siblings in institutions of higher education, where the contribution from discretionary income is viewed as a maximal one.

At the time of adopting the elasticity concept for determining contributions from discretionary income, a point elasticity of 2.0 was used throughout the discretionary income spectrum even though data on consumption patterns for families with incomes over $15,000 was not available. While large changes in expected parental contributions resulted for families with incomes over $17,500, they were still "no need" under then-prevailing institutional costs and presumed capable of providing for the educational costs without the assistance of financial aid. In light of current institutional costs, which have raised the "effective level of contributions," parental expectations at the higher incomes has come under question.

There are several alternatives available to CSS for modifying the current level of expectations. It would be possible to revise the several income points (poverty, moderate and upper) based on current techniques and updated food costs to reflect changes in the cost of living (approximately 11 per cent from the fall of 1967 to July 1969). Using this technique would reduce the contributions from families over the entire income spectrum. While this would ease the burden on families in the lower-income stratums, it would further reduce the contributions expected from higher-income families -- a direction which is not currently sought. Changes in the expected contributions from the higher income groups could be accomplished by raising the elasticity coefficient and truncating the income base. Since no data exists relative to expenditure elasticities for incomes above $15,000 in the 1960-61 consumption survey, this methodology would have to result from pragmatic, procedural decisions of CSS.

Alternatively, it would be possible to utilize data on the three standards of

living recently published by the Bureau of Labor Statistics[24] to provide the basis for a complete revision of expected contributions. Such a possibility was mentioned in our discussion of the 1966 City Worker's Family Budget:

> " ... the BLS is currently planning to reprice the moderate standard on the basis of Spring 1967 costs. In addition, costs for a lower standard (representing a minimum of adequacy) and a higher standard budget (representing a more comfortable level and manner of living) on the basis of Spring 1967 prices will be published. These three budgets, representing minimum, moderate and affluent levels might provide the basis for a complete revision of levels of expected contributions over all income levels ...".[25]

A proposal for revising the current levels of expectations and its comparative effects is set forth below.

Revised Procedures Based on Three Standards of Living

At the time consideration was given to incorporating the revised CWFB into CSS procedures, one of the main objections was its cost in comparison with the moderate standard then being used by CSS (an average CWFB of about $9,200 compared with the $7,100 then in use). Many of the comments regarding the CWFB stemmed from the standards used by the BLS in constructing the budget.[26] While the CWFB is high in comparison with current standards, we do not think it too high for the population served by CSS, particularly if consideration is given to incorporating the lower and upper standards.

---

[24] Three Standards of Living for an Urban Family of Four Persons, BLS Bulletin No. 1570-5.

[25] Bowman and Weiss, Some Aspects and Implications of the 1966 City Worker's Family Budget for CSS Needs Analysis Procedures, op. cit., p. 16.

[26] The change in standards and their implications were discussed in Bowman and Weiss, Some Aspects and Implications ..., op. cit., p. 13ff.

The CSS population has generally had higher incomes than the population as a whole because it omits the very young and very old (families unlikely to have a college-age child) whose incomes are lowest. Data regarding 1967 income distributions for husband-wife families in the 45-64 age range have recently been made available. Such a distribution is far more suitable for use with the college-age family population than are the statistics relating to the U. S. population as a whole. Ideally, one would like income data on the 40-54 age range since this would include about 85 per cent of the CSS filing population. Since incomes in the 55-64 age range are lower than in the 35-44 range, use of the general statistics for 45-64 probably even understates to some extent the income distribution for families of ages likely to have college-age children.

In comparing the three budget standards of BLS (after adapting to the age and size of the families with which CSS is concerned) with the income statistics for the 45-64 age range, we find the following distributions:

Table 5. Percentage Distributions of Families in the U. S., Age 45-64, Above and Below the BLS Budget Standards

BLS Budget Standard	Percentage Distributions of U. S. Families with Incomes: Below Standard	Above Standard
Lower Standard	19%	81%
Moderate Standard	41%	59%
Higher Standard	66%	34%

In contrast, if the 45-64 age income distributions were compared with the present CSS points of no contribution and the moderate level, we find significant differences. At the income levels at which no contribution is expected, 12 per cent of the families had incomes below and 88 per cent above. At the moderate income points we find 28 per cent below and 72 per cent above. As can be seen, the BLS standards provide a much better delineation of the population into the traditionsl income groupings. Based upon the general age group and income distributions of the CSS filing population, we feel that incorporating the three budget standards of BLS in CSS procedures is desirable and does not provide standards that are too high.

In order to incorporate the BLS standards in CSS procedure, certain adjustments must be made to account for age and family size differences. The BLS budget figures are based upon a four-person family with children ages 13 and 8. In order to more closely approximate the costs for a family with a college-age child, it is necessary to increase the consumption budget for the higher costs associated with an older child (primarily food and clothing). This generally increases the BLS estimates of consumption expenditures by about 3 per cent.

Family size difference is one of the major problems associated with use of BLS data (or any consumption data for that matter). Families with four or more children are so small a proportion of the total that any population sample on which statistical work is based cannot deal with them. Even the CSS population had only 30 per cent of families with four children or more; less than 15 per cent with five or more children. Moreover, the statistical work on family size is not completely satisfactory.

The BLS method of determining family size differentials is based on the assumption that families have equivalent increases when they spend the same proportion of income for food. The Orshansky method (currently used by CSS for establishing family size differences) also depends on food costs, namely that equivalent increases are those which cover food costs when the same per cent of income is spent for food. Thus, both depend on food costs or expenditures as a per cent of the total, which is increasingly unsatisfactory as incomes go up and per cent of food declines for the country as a whole, and also for application at the higher income levels. Either method (BLS or Orshansky) show generally similar results for families up to five children. Ideally, we would recommend that the expectation for larger-size families be shown as "five or more", particularly since the rate of increase with family size decreases as you move along the scale. In order to provide family size differences for families with six or more children it is necessary to extrapolate by somewhat pragmatic procedures. While we have included such families in our illustrations, since CSS is currently providing such differentiations, we would suggest that

serious consideration be given to using the five-child expectations to cover cases of five children or more.

Suggested effective income points (income after taxes) for various size families at the three standards are set forth in Table 6:

Table 6. Proposed Effective Income Points for Three Budget Standards by Family Size[27]

Number of Children	Effective Income Level at: Low	Moderate	Higher
1	$4,460	$ 6,600	$ 9,110
2	5,570	8,250	11,400
3	6,550	9,700	13,400
4	7,350	10,880	15,030
5	7,800	11,550	15,940
6	8,250	12,210	16,850
7	8,600	12,740	17,580
8	8,920	13,200	18,220
9	9,180	13,600	18,770
10	9,410	13,930	19,220

Having established new effective income points at three budget standards, the next question becomes: What should be the expected contribution at these three levels since families of varying size have equivalent increases? We are dubious about determining what the family contribution toward maintenance should be, based upon details of the BLS moderate budget. This budget detail (food, clothing, recreation, etc.) is available only for the much younger BLS budget-type family.

An alternative approach, for the moderate level, would be to devise maintenance cost estimates for the college-age child by working backwards from the increases in

---

[27]Based upon BLS estimates of consumption expenditures at the three standards at Fall 1968 prices, adjusted for age and family size differences.

the budget as family size increases. For example, budget costs for a family of three with a college-age child are estimated at $6,600; for a family of four, at $8,250. Accordingly, the extra person "costs" $1,650.[28] As family size increases, the added cost decreases. For example, the fifth child increases budget costs by about $670. In order to provide a standard contribution for equivalent incomes at different family sizes, a weighted average budget change has been developed using CSS families as the population weights. The weighted average budget change for the different family sizes comes to $1,180. Following current CSS procedures of taking three-fourths of this amount for a nine-month required maintenance share would provide for an expectation of about $885. Consequently, we would propose that at the new moderate standard a required maintenance contribution of $900 be expected.

The next question becomes: What should be the expected contributions at the low standard and higher standard? We would propose that a $200 contribution be expected at income levels of the low standard and that this become the base contribution expected by CSS. For families falling below the low-income standard, no contribution should be expected. At incomes approximating the low standard, there is little ability to generate a cash flow or savings when a child departs for colleges. Rather, the standard is so tight that the absence of a child will be reflected by a less severe budget for the remaining family members rather than any form of savings. Meat may appear on the menu more frequently or frozen vegetables substituted for canned or fresh. Assistance to the child at school is most likely to take the form of continuation of a small allowance and some assistance with clothing purchases.[29] We would estimate these contributions, both in cash and in kind, at $200 for incomes at the low-budget standard.

Above the moderate standard, a more affluent and comfortable level of living prevails and additional support for the child may be expected. On the basis of changes

---

[28]This concept has been discussed with BLS staff and they are proposing it to inquirers who want to estimate the cost of raising a child.

[29]We are indebted to the Inner City Student Financial Aid Advisory Council, Chicago, Illinois, for insight into the spending patterns of low-income families.

in budget levels as families increase their living standards we would estimate that an additional $900 could be expected at income levels approximating those at the higher budget standard. This would then provide for a total contribution of $1,800 at this level of income.

Use of this procedure would give rise to the following expected contributions at each of the three standards of living:

Low Standard	$ 200
Moderate Standard	900
Higher Standard	1,800

Adoption of these standards and the related levels of income and expected contributions would enable CSS to develop a table of expected contributions based upon a series of income points developed from a common standard and pricing procedure. A situation which heretofore has not been possible. For incomes above the level indicated by the high standard, we are faced with the same problem that existed before -- namely, that data regarding spending patterns of families with high incomes does not exist. Consequently, any decision as to what should be expected from families above the proposed high standard (the point of $1,800 contribution) must necessarily be somewhat pragmatic.

We would propose that the current CSS technique for determining contributions from incomes above the moderate level (the use of a point elasticity technique) be utilized for determining contributions from income above the proposed high standard. There is general consensus among economists that if the 1960-61 Consumption Survey were replicated at this time that higher income-expenditure elasticities than the 2.0 now being used would result, but as to what they would be is entirely speculative. In light of this general feeling regarding elasticities, we would propose that the fourth income point be established using a point elasticity of 2.5 and the income and contribution levels of the high budget standard as the base. Adoption of this procedure would provide for a larger marginal taxing rate than is currently in effect

for these income levels and a concomitant increase in expected contributions. As an example, the marginal taxing rates for income falling above the high budget standard would range from about 49 per cent for the one-child family to 23 per cent for the ten-child family under the proposed procedures. At the current time the marginal rates for discretionary income range from 41 per cent to 20 per cent for similar families.

Based upon our recommendations, we have prepared a proposed table of expected contributions from parents' adjusted effective income from various income levels and family sizes. This table is similar to the current Table E. in the Manual for Financial Aid Officers and is included as Appendix A. An analysis of the changes in contribution that would result for selected families and income levels if our proposals are accepted is set forth in Appendix B. Generally, for lower income families, the proposed recommendations will reduce the expected contributions by about $200 on the average. For families in the middle ranges of income, the contributions remain essentially the same. For families in the higher income ranges, the expected contributions are substantially increased. It would appear that the proposed recommendations produce results generally consistent with the feelings of financial aid officers regarding current levels of expected contributions.

JLB:as
September 1969

Total Parents' Contribution from Adjusted Effective Income

Proposed 1969-70

Adjusted Effective Income	One Child	Two Child	Three Child	Four Child	Five Child	Six Child	Seven Child	Eight Child	Nine Child	Ten Child
$ 4,000	0									
4,250	0									
4,500	220									
4,750	300									
5,000	380									
5,250	460									
5,500	540	0								
5,750	630	250								
6,000	710	310								
6,250	790	380	0							
6,500	870	440	190							
6,750	960	510	240							
7,000	1,050	570	300							
7,250	1,140	640	360	0						
7,500	1,230	700	410	230						
7,750	1,320	770	470	280	0					
8,000	1,410	830	520	330	240	0				
8,250	1,500	900	580	380	290	200				
8,500	1,590	970	630	430	330	250	0			
8,750	1,680	1,040	690	480	380	290	220	0		
9,000	1,770	1,110	740	530	430	340	270	220	0	
9,250	1,870	1,180	800	580	470	380	310	260	210	0
9,500	1,990	1,250	860	630	520	420	350	300	250	210
9,750	2,120	1,330	910	680	570	470	390	340	290	250
10,000	2,240	1,400	970	730	610	510	430	380	330	290
10,250	2,360	1,470	1,030	780	660	560	480	420	370	330
10,500	2,490	1,540	1,090	830	700	600	520	460	410	370
10,750	2,610	1,610	1,150	880	750	650	560	500	450	410
11,000	2,730	1,680	1,220	930	800	690	600	540	490	450
11,250	2,860	1,750	1,280	980	850	730	650	590	530	490
11,500	2,980	1,840	1,340	1,030	890	780	690	630	570	530
11,750	3,100	1,940	1,400	1,090	950	820	730	670	610	570

Adjusted Effective Income	One Child	Two Child	Three Child	Four Child	Five Child	Six Child	Seven Child	Eight Child	Nine Child	Ten Child
$12,000	3,230	2,040	1,460	1,140	1,000	870	770	700	650	600
12,250	3,350	2,140	1,520	1,200	1,050	920	820	750	690	640
12,500	3,480	2,230	1,580	1,250	1,100	970	860	790	730	680
12,750	3,600	2,330	1,640	1,300	1,150	1,010	910	830	770	720
13,000	3,720	2,430	1,700	1,360	1,200	1,060	960	870	810	760
13,250	3,850	2,530	1,760	1,410	1,260	1,110	1,000	920	850	800
13,500	3,970	2,630	1,830	1,470	1,310	1,160	1,050	960	890	840
13,750	4,090	2,730	1,920	1,520	1,360	1,210	1,100	1,010	930	870
14,000	4,220	2,830	2,000	1,580	1,410	1,250	1,140	1,050	980	920
14,250	4,340	2,920	2,090	1,630	1,460	1,300	1,190	1,100	1,020	960
14,500	4,460	3,020	2,170	1,690	1,510	1,350	1,240	1,140	1,060	1,010
14,750	4,590	3,120	2,250	1,740	1,560	1,410	1,280	1,180	1,110	1,050
15,000	4,710	3,220	2,340	1,790	1,620	1,450	1,330	1,230	1,150	1,090
15,250	4,830	3,320	[illegible]	1,870	1,670	1,500	1,380	1,270	1,200	1,130
15,500	4,960	3,420	2,500	1,940	1,720	1,550	1,420	1,320	1,240	1,180
15,750	5,080	3,520	2,590	2,020	1,770	1,600	1,470	1,360	1,280	1,220
16,000	5,200	3,620	2,670	2,090	1,820	1,640	1,520	1,410	1,330	1,260
16,250	5,330	3,710	2,760	2,170	1,890	1,690	1,560	1,450	1,370	1,300
16,500	5,450	3,810	2,840	2,240	1,960	1,740	1,610	1,500	1,410	1,350
16,750	5,570	3,910	2,920	2,310	2,030	1,790	1,660	1,540	1,460	1,390
17,000	5,700	4,010	3,000	2,390	2,100	1,840	1,700	1,590	1,500	1,430
17,250	5,820	4,110	3,010	2,460	2,170	1,910	1,750	1,630	1,540	1,470
17,500	5,950	4,210	3,180	2,540	2,240	1,970	1,800	1,680	1,590	1,520
17,750	6,070	4,310	3,260	2,610	2,310	2,040	1,840	1,720	1,630	1,560
18,000	6,190	4,400	3,340	2,690	2,380	2,110	1,910	1,770	1,670	1,600
18,250		4,500	3,430	2,760	2,450	2,170	1,970	1,810	1,720	1,640
18,500		4,600	3,510	2,840	2,520	2,240	2,040	1,870	1,760	1,690
18,750		4,700	3,600	2,910	2,590	2,310	2,100	1,930	1,800	1,730
19,000		4,800	3,680	2,990	2,660	2,370	2,160	1,990	1,850	1,770
19,250		4,900	3,760	3,060	2,730	2,440	2,230	2,050	1,910	1,810
19,500		5,000	3,850	3,140	2,800	2,510	2,290	2,120	1,970	1,860
19,750		5,100	3,930	3,210	2,880	2,580	2,360	2,180	2,030	1,920

Adjusted Effective Income	One Child	Two Child	Three Child	Four Child	Five Child	Six Child	Seven Child	Eight Child	Nine Child	Ten Child
$20,000		5,190	4,020	3,290	2,950	2,640	2,420	2,240	2,090	1,980
20,250		5,290	4.100	3,360	3,020	2,710	2,480	2,300	2,150	2,040
20,500		5,390	4,180	3,440	3,090	2,780	2,550	2,360	2,210	2,100
20,750		5,490	4,270	3,510	3,160	2,840	2,610	2,420	2,270	2,160
21,000		5,590	4,350	3,590	3,230	2,910	2,680	2,490	2,330	2,220
21,250		5,690	4,440	3,660	3,300	2,980	2,740	2,550	2,390	2,270
21,500		5,790	4,520	3,740	3,370	3,040	2,800	2,610	2,450	2,330
21,750		5,880	4,600	3,810	3,440	3,110	2,870	2,670	2,510	2,390
22,000		5,980	4,690	3,890	3,510	3,180	2,930	2,730	2,570	2,450
22,250		6,080	4,770	3,960	3,580	3,240	3,000	2,800	2,630	2,510
22,500		6,180	4,860	4,040	3,650	3,310	3,060	2,860	2,690	2,570
22,750		6,280	4,940	4,110	3,720	3,380	3,120	2,920	2,750	2,630
23,000			5,020	4,190	3,790	3,440	3,190	2,980	2,810	2,680
23,250			5,110	4,260	3,860	3,510	3,250	3,040	2,870	2,740
23,500			5,190	4,340	3,930	3,580	3,320	3,100	2,930	2,800
23,750			5,280	4,410	4,000	3,640	3,380	3,170	2,990	2,860
24,000			5,360	4,490	4,080	3,710	3,440	3,230	3,050	2,920
24,250			5,440	4,560	4,150	3,780	3,510	3,290	3,110	2,980
24,500			5,530	4,640	4,220	3,840	3,570	3,350	3,170	3,040
24,750			5,610	4,710	4,290	3,910	3,640	3,410	3,230	3,090
25,000			5,700	4,790	4,360	3,980	3,700	3,480	3,290	3,150
25,250			5,780	4,860	4,430	4,040	3,760	3,540	3,350	3,210
25,500			5,860	4,930	4,500	4,110	3,830	3,600	3,410	3,270
25,750			5,950	5,010	4,570	4,180	3,890	3,660	3,470	3,330
26,000			6,030	5,080	4,640	4,240	3,960	3,720	3,530	3,390
26,250			6,110	5,160	4,710	4,310	4,020	3,780	3,590	3,450
26,500			6,200	5,230	4,780	4,380	4,080	3,850	3,650	3,500
26,750			6,280	5,310	4,850	4,440	4,150	3,910	3,710	3,560
27,000				5,380	4,920	4,510	4,210	3,970	3,770	3,620
27,250				5,460	4,990	4,580	4,280	4,030	3,830	3,680
27,500				5,530	5,060	4,650	4,340	4,090	3,890	3,740
27,750				5,610	5,130	4,710	4,400	4,150	3,950	3,800

Comparison of Expected Parental Contributions
Proposed 1969-70 versus 1968-69
By Selected Family Size

Adjusted Effective Income	One-Child			Two-Child			Three-Child			Four-Child		
	Proposed	Current	Difference	Proposed	Current	Difference	Proposed	Current	Difference	Proposed	Current	Difference
$ 3,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
4,000	0	280	(280)	0	0	0	0	0	0	0	0	0
5,000	380	560	(180)	0	290	(290)	0	100	(100)	0	0	0
6,000	700	840	(140)	310	540	(230)	0	310	(310)	0	170	(170)
7,000	1,040	1,110	(70)	570	790	(220)	300	530	(230)	0	360	(360)
8,000	1,400	1,380	20	830	1,010	(180)	520	740	(220)	330	550	(220)
9,000	1,760	1,650	110	1,110	1,240	(130)	740	940	(200)	530	740	(210)
10,000	2,240	1,930	310	1,400	1,470	(70)	970	1,130	(160)	730	920	(190)
11,000	2,730	2,200	530	1,690	1,690	0	1,220	1,320	(100)	930	1,090	(160)
12,000	3,230	2,510	720	2,040	1,920	120	1,460	1,510	(50)	1,140	1,260	(120)
13,000	3,720	2,920	800	2,430	2,150	280	1,700	1,710	(10)	1,360	1,430	(70)
14,000	4,220	3,320	900	2,830	2,370	460	2,000	1,900	100	1,580	1,610	(30)
15,000	4,710	3,730	980	3,220	2,700	520	2,340	2,090	250	1,790	1,780	10
16,000	5,200	4,140	1,060	3,620	3,040	580	2,670	2,280	390	2,090	1,950	140
17,000	5,700	4,550	1,150	4,010	3,380	630	3,010	2,520	490	2,390	2,120	270
18,000	6,190	4,960	1,230	4,400	3,720	680	3,350	2,810	540	2,690	2,290	400
19,000		5,370		4,800	4,060	740	3,680	3,090	590	2,990	2,500	490
20,000		5,780		5,190	4,400	790	4,020	3,380	640	3,290	2,760	530
21,000		6,190		5,590	4,740	850	4,350	3,670	680	3,590	3,010	580
22,000		6,600		5,980	5,080	900	4,690	3,960	730	3,890	3,270	620